



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,262	12/15/2003	Mario Besek	HAWE-56US	6449
26875	7590	01/05/2007	EXAMINER	
WOOD, HERRON & EVANS, LLP 2700 CAREW TOWER 441 VINE STREET CINCINNATI, OH 45202			KILKENNY, PATRICK L	
ART UNIT		PAPER NUMBER		
				3732
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	01/05/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/736,262	BESEK ET AL.	
	Examiner	Art Unit	
	Patrick J. Kilkenny	3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 13 October 2006.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-3 and 5-59 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-3, and 5-59 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application
6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6, 15, 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirzel (5,176,754). Hirzel discloses an instrument capable of distributing restorative material comprising a handle (22) a first working end (32), and a substantially uniform cylindrical first roller tip (26) with a proximal end attached to, and rotatable about a center axis of, the first working end. The distal end of the first roller tip is extending away from the first working end. This roller tip is also removable and can be replaced with other roller tips (Column 1, lines 62-66). The handle portion has a center axis that is angle 45-90 degrees with respect to the center axis of the first working end. It is also disclosed that there is a bushing or a roller element bearing (30) with a clipping portion (internal surface of cylinder 30) between the ridge (outer surface) of the first working end and the roller tip, in which the first roller tip rotates relative to the first working end by the bushing or roller element bearing.

Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Wagner (5,611,687). Wagner discloses a dental instrument for distributing restorative materials with a handel (12), a first working end (26), and a first roller tip (60). The first roller tip has a proximal end rotatably mounted on the first working end (within 28B) and

a distal end that extends away from the first working end (distal tip at 60B). The center axis of the handle and the first working end are coaxial and the first roller tip rotates about the center axis of the first working end.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirzel in view of Watmough et al. (4,735,604). Hirzel discloses the claimed invention with the exception of using polytetrafluoroethylene as a friction-reducing additive for reducing friction of the roller end. Watmough et al. discloses an aspirator for use with a dental drill (Column 8, lines 12-17) in which the bushings are coated with polytetrafluoroethylene do reduce the kinetic coefficient of friction to facilitate movement (Column 3, lines 43-47). Therefore it would have been obvious to modify the device of Hirzel with a coating of polytetrafluoroethylene, as taught by Watmough et al., since it is known that polytetrafluoroethylene is an ideal material to decrease friction between moving parts, such as in bushings. With respect to the %wt of polytetrafluoroethylene and the exact kinetic coefficient of friction, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use 2-30%wt or 5-15 %wt to obtain a kinetic coefficient of friction of 0.2, since it has been held that where the

general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

With respect to claim 11, the office takes Official Notice that is obvious to reinforce any handle or body with glass or carbon fibers to increase the strength of said handle.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirzel in view of Torino (2,653,598). Hirzel discloses the claimed invention with the exception of the roller tip comprising a material selected from the group consisting of: silicone, a thermoplastic elastomer, and polyurethane. Torino discloses a dental tool with a cylindrical roller tip that is made of a thermoplastic elastomer (i.e. synthetic resin), as well as the handle and working end (Column 2, lines 47-50 and Column 3, lines 9-11). Therefore, it would have been obvious to modify the roller tip of Hirzel so that it was made of a thermoplastic elastomer, as taught by Torino, since thermoplastics are well known materials for introduction into the oral cavity within the dental art, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

In re Leshin, 125 USPQ 416.

Claims 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirzel in view of Varaine (5,118,291). Hirzel discloses the claimed invention with the exception of the roller tip having a Shore A hardness in the range of 20-60, and the roller tip having a tapered cylindrical shape. Varaine teaches dental instrument capable of distributing restorative material on a tooth with interchangeable and cylindrically

tapered tips (7) having a Shore A hardness of 50-60 that is attached to a first working end (3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shore hardness, and the shape of the roller tips of Hirzel, as taught by Varaine, in order to obtain a distributing dental device with an ideal shore hardness to apply pressure to the teeth, as well as having a shape and angle of attack to fit into various recesses among the teeth.

Claims 20-27, 40, 42-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirzel. Hirzel also discloses a second working end with a distributive tip (18 and 28). However, Hirzel does not disclose that the second tip is a roller tip with similar structure to the first roller tip. It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the assembly of Hirzel having a plurality of roller assemblies, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

With regard to claim 27, the first working end of Hirzel is at an angle of 45-90 degrees with the handle while the second working end is coaxial with the handle. It would have been obvious to modify the device of Hirzel so that the first working end was coaxial with the handle and the second working end was at an angle of 45-90 with respect to the handle, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

Claims 28-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirzel, as applied to claim 26 above, and further in view of Watmough et al. Hirzel

discloses the claimed invention with the exception of using polytetrafluoroethylene as a friction-reducing additive for reducing friction of the roller ends. Watmough et al. discloses an aspirator for use with a dental drill (Column 8, lines 12-17) in which the bushings are coated with polytetrafluoroethylene do reduce the kinetic coefficient of friction to facilitate movement (Column 3, lines 43-47). Therefore it would have been obvious to modify the device of Torino with a coating of polytetrafluoroethylene, as taught by Watmough et al., since it is known that polytetrafluoroethylene is an ideal material to decrease friction between moving parts, such as in bushings.

With respect to the %wt of polytetrafluoroethylene and the exact kinetic coefficient of friction, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use 2-30%wt or 5-15 %wt to obtain a kinetic coefficient of friction of 0.2, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirzel, as applied to claim 26 above, and further in view of Torino (2,653,598). Hirzel discloses the claimed invention with the exception of the roller tip comprising a material selected from the group consisting of: silicone, a thermoplastic elastomer, and polyurethane. Torino discloses a dental tool with a cylindrical roller tip that is made of a thermoplastic elastomer (i.e. synthetic resin), as well as the handle and working end (Column 2, lines 47-50 and Column 3, lines 9-11). Therefore, it would have been obvious to modify the roller tip of Hirzel so that it was made of a thermoplastic elastomer, as taught by Torino,

since thermoplastics are well known materials for introduction into the oral cavity within the dental art, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claims 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirzel in view of Torino, as applied to claim 38 above, and further in view of Varaine (5,118,291). Hirzel discloses the claimed invention with the exception of the roller tip having a Shore A hardness in the range of 20-60. Varaine teaches dental instrument capable of distributing restorative material on a tooth with interchangeable and cylindrically tapered tips (7) having a Shore A hardness of 50-60 that is attached to a first working end (3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the the shape of the roller tips of Hirzel, as taught by Varaine, in order to obtain a distributing dental device with an ideal shore hardness to apply pressure to the teeth.

Claims 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirzel, as applied to claim 26 above, and further in view of Varaine (5,118,291). Hirzel discloses the claimed invention with the exception of the roller tip having a tapered cylindrical shape. Varaine teaches dental instrument capable of distributing restorative material on a tooth with interchangeable and cylindrically tapered tips (7) having a Shore A hardness of 50-60 that is attached to a first working end (3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shape of the roller tips of Hirzel, as taught by Varaine, in order to

obtain a distributing dental device with a shape and angle of attack to fit into various recesses among the teeth.

Claims 47-50, 53, and 55-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirzel in view of Watmough et al. Hirzel discloses the claimed invention with the exception of using polytetrafluoroethylene as a friction-reducing additive for reducing friction of the roller end. Watmough et al. discloses an aspirator for use with a dental drill (Column 8, lines 12-17) in which the bushings are coated with polytetrafluoroethylene do reduce the kinetic coefficient of friction to facilitate movement (Column 3, lines 43-47). Therefore it would have been obvious to modify the device of Hirzel with a coating of polytetrafluoroethylene, as taught by Watmough et al., since it is known that polytetrafluoroethylene is an ideal material to decrease friction between moving parts, such as in bushings. With respect to the %wt of polytetrafluoroethylene and the exact kinetic coefficient of friction, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use 2-30%wt or 5-15 %wt to obtain a kinetic coefficient of friction of 0.2, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirzel in view of Watmough, as applied to claim 47 above, and in further view of Torino (2,653,598). Hirzel in view of Watmough disclose the claimed invention with the exception of the roller tip comprising a material selected from the group consisting of: silicone, a thermoplastic elastomer, and polyurethane. Torino discloses a dental tool

with a cylindrical roller tip that is made of a thermoplastic elastomer (i.e. synthetic resin), as well as the handle and working end (Column 2, lines 47-50 and Column 3, lines 9-11). Therefore, it would have been obvious to modify the roller tip of Hirzel in view of Watmough so that it was made of a thermoplastic elastomer, as taught by Torino, since thermoplastics are well known materials for introduction into the oral cavity within the dental art, and since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claims 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirzel in view of Watmough and in further view of Torino, as applied to claim 51 above, and further in view of Varaine (5,118,291). Hirzel in view of Watmough and in further view of Torino discloses the claimed invention with the exception of the roller tip having a Shore A hardness in the range of 20-60. Varaine teaches dental instrument capable of distributing restorative material on a tooth with interchangeable and cylindrically tapered tips (7) having a Shore A hardness of 50-60 that is attached to a first working end (3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the the shape of the roller tips of Hirzel in view of Watmough and in further view of Torino, as taught by Varaine, in order to obtain a distributing dental device with an ideal shore hardness to apply pressure to the teeth.

Claims 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirzel in view of Watmough, as applied to claim 47 above, and further in view of Varaine (5,118,291). Hirzel discloses the claimed invention with the exception of the roller tip

having a tapered cylindrical shape. Varaine teaches dental instrument capable of distributing restorative material on a tooth with interchangeable and cylindrically tapered tips (7) having a Shore A hardness of 50-60 that is attached to a first working end (3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shape of the roller tips of Hirzel in view of Watmough, as taught by Varaine, in order to obtain a distributing dental device with a shape and angle of attack to fit into various recesses among the teeth.

Response to Arguments

Applicant's arguments with respect to claims 1-59 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J. Kilkenny whose telephone number is (571) 272-8684. The examiner can normally be reached on Mon-Fri, 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Patrick J. Kilkenny



Cary E. O'Connor
Primary Examiner